conventional fire assay processes. Thus, when the flux 26 is added to the crucible 46 in the induction furnace 44 (which is normally preheated a temperature of about 1000°C), the sodium hydroxide melts, wets the sample and flux, and retards spattering and boiling when power is applied to the induction furnace. The sodium hydroxide then reacts with silicates in the sample to form slag. Up to now it has not been possible to use sodium hydroxide in conventional fire assay processes as these processes make use of clay pots and the sodium hydroxide would react with silica-in the pots and destroy them during heating. The sodium hydroxide does not however have this effect on a graphite or zirconium melting pot 46. Also, there has been no feasible way of storing and transporting NaOH, because it is hygroscopic, and the sealed containers calcium carbonate cannot be used in an induction furnace as it will blow out during rapid heating of the melting pot 46.

Please add the following paragraph beginning at page 21, line 4:

<u>Examples</u>

<u>IN THE CLAIMS</u>

Please amend Claims 1, 5, 7, 9-12, 15-24, 26-37 as follows:

<u>What is Claimed:</u>

1. (Amended) A method of assaying an ore sample to determine the concentration of selected metals therein, comprising the steps of:

combining the prepared ore sample with a lead-containing flux in a receptacle;

inductively heating the combination to form a fusion of slag and lead, the lead collecting the metals in the sample; and

separating the lead from the slag.

5. (Amended) The method according to Claim 1 wherein the sample of ore and flux are combined in a container made from carbon-based material, and the container, the sample and the flux are inductively heated.

7. (Amended) The method according to Claim 5 wherein the container includes identification means for identifying the sample contained therein.

9. (Amended) A method according to Claim 1 wherein the flux contains sodium hydroxide.

10. (Amended) The method according to Claim 1 wherein the sample is heated inductively within a graphite receptacle in an induction furnace.

11. (Amended) The method according to Claim 1 wherein the sample is heated inductively within a zirconium receptacle in an induction furnace.

12. (Amended) The method according to Claim 1 wherein molten lead separated from the slag is poured into a chilled mould, to provide a solid lead button.

15. (Amended) A method according to Claim 12 wherein each solid lead button is stamped with an identification code.

16. (Amended) A receptacle for use in a method of assaying an ore sample according to Claim 1, the receptacle comprising a base with a side wall extending from the base, the side wall defining a top opening into the receptacle, and the side wall having a collecting cavity, wherein the collecting cavity is sized to collect a predetermined amount of molten lead.

17. (Amended) A receptacle for use in a method of assaying an ore sample according to Claim 16 wherein the collecting cavity is located proximate the top opening of the receptacle.

18. (Amended) A receptacle for use in a method of assaying an ore sample according to Claim 16 wherein barrier means is provided between the collecting cavity and the opening of the receptacle, to trap molten lead in the collecting cavity.

19. (Amended) A receptacle for use in a method ~~for~~ of assaying an ore sample according to Claim 16 wherein the collecting cavity is formed within a removable plug which is attachable to the side wall of the receptacle.

20. (Amended) A receptacle for use in a method ~~for~~ of assaying an ore sample according to Claim 16 including a first spout located at the top opening, above the collecting cavity.

21. (Amended) A receptacle for use in a method of assaying an ore sample according to Claim 20 including a second spout located at the top opening, diametrically opposed to the first spout.

22. (Amended) A receptacle for use in a method of assaying an ore sample according Claim 16 wherein the receptacle is also a melting pot for an induction furnace.

23. (Amended) A receptacle for use in a method of assaying an ore sample according Claim 16 made from graphite.

24. (Amended) A method of separating molten lead from slag, in the receptacle of Claim 16, the method including the steps of:

1. introducing a slag with a predetermined amount of molten lead therein into the receptacle;

2. rotating the receptacle in a first direction toward the collecting cavity so that the molten lead fills and is retained within the cavity, rotating the receptacle further so that the slag is discharged from the opening to the receptacle;

3. rotating the receptacle so that the molten lead flows out of the opening to the receptacle; and

4. collecting the lead discharged from the opening of the receptacle.

26. (Amended) A flux composition for use in a method of assaying an ore sample according to Claim 1, the flux composition containing sodium hydroxide.

27. (Amended) A flux composition for use in a method of assaying an ore sample according to Claim 26, comprising 20% to 60^, by weight, sodium hydroxide.

28. (Amended) A flux composition for a method ~~for~~ of assaying an ore sample according to Claim 26 further comprising:

29. (Amended) A flux composition for use in a method of assaying an ore sample according to Claim 27 comprising 20% to 50%, by weight sodium hydroxide, 25% to 40% lead oxide and 25% to 40% borax.

30. (Amended) A flux composition for use in a method of assaying an ore sample according to Claim 26 further including silver nitrate.

31. (Amended) A sealed container, for use in a method of assaying in an ore sample according to Claim 5, the sealed container made from a carbon-based sodium carbonate.

32. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 31 including a replaceable lid.

33. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 31 made form a combustible material.

34. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 33 made from a plastics material.

35. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 34 made from a mixture of plastics material and a flux material.

36. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 35 wherein the flux material is calcium carbonate.

37. (Amended) A sealed container for use in a method of assaying an ore sample according to Claim 36, the mixture including 60 to 80%, by weight, calcium carbonate.